

REMARKS

No claims are amended, no claims are canceled, and no claims are added; as a result, claims 1-30 are now pending in this application.

In the Drawings

Formal drawings of FIG. 1A, FIG. 1B, FIG. 1C, FIG. 1D, FIG. 1E, FIG. 2, FIG. 3, FIG. 4A, FIG. 4B, and FIG. 4C on sheets 1-6 are included with this response. No amendments to the informal drawings as filed have been made. No new matter is included with this submission of formal drawings.

§102 Rejection of the Claims

§ 102(b) rejection of claims 1-2, 6-18, 26-27, and 29.

Claims 1-2, 6-18, 26-27, and 29 were rejected under 35 U.S.C. § 102(b) as being anticipated by Mizuno et al. (U.S. 6,166,577). Applicant respectfully traverses the rejection of claims 1-2, 6-18, 26-27, and 29.

The cited reference of Mizuno et al. fails to describe all of the elements of claims 2, 6-18, 26-27, and 29.

Claims 1 and 12 recite, "a leakage timing circuit formed on the substrate, the leakage timing circuit having a frequency related to a leakage current." Claim 16 recites, "a leakage timing circuit formed on the substrate, the leakage timing circuit having a leakage current and the leakage timing circuit to generate a signal having a frequency related to the leakage current." Claim 26 recites, "generating a second signal related to a leakage current."

In contrast, Mizuno et al. discloses at column 8, lines 4-11 that, "The semiconductor integrated circuit device includes a main circuit LOG1 and a substrate-bias dependent oscillation circuit OSC1 which varies the oscillation frequency in response to the substrate bias. A substrate bias control circuit CNT1 uses the output S1 of the oscillation circuit OSC1 and the oscillation output CLK1 of an operation-mode dependent oscillation circuit VCLK1 to produce substrate voltages BP1 and BN1 for the main circuit LOG1." Thus, Mizuno et al. discloses a substrate-

bias dependent oscillation circuit and an operation mode dependent oscillation circuit. However, Mizuno et al. fails to describe a leakage timing circuit having a frequency related to a leakage current as recited in claims 1, 12, and 16, and further, fails to describe generating a second signal related to a leakage current as recited in claim 26. Therefore, Mizuno et al. fails to describe all of the elements recited in claims 1, 12, 16, and 26.

The Office Action on page 2 states, ". . . (the leakage current of the transistor is determined by voltage that is biased to its substrate or well. Therefore, the frequency of OSC circuit is also dependent on the leakage current of the transistor." Applicant respectfully disagrees. The Office Action has pointed to no portion of Mizuno et al. that supports these statements. In addition, Applicant realized that inherent characteristics may be used in forming a rejection based on anticipation, however, to serve as an anticipation when a reference is silent about the asserted inherent characteristic, the gap in the reference may be filled with recourse to extrinsic evidence. But, such evidence must make clear that "the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill." *Continental Can Co. v. Monsanto Co.*, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991). Applicant respectfully submits that the Office Action fails to produce any evidence to show that the elements of a leakage timing circuit having a frequency related to a leakage current (as recited in claims 1, 12, and 16) and generating a second signal related to a leakage current (as recited in claim 26) are necessarily present in Mizuno et al. Thus, the Office Action fails to show in a single reference, either explicitly or inherently, all of the elements recited in claims 1, 12, 16, and 26.

Claims 2 and 6-11 depend from claim 1; claims 13-15 depend from claim 12; claims 17-18 depend from claim 16; and claims 27 and 29 depend from claim 26. Therefore, dependent claims 2, 6-11, 13-14, 17-18, and claims 27 and 29 include all of the elements of the claim from which they depend. For reasons analogous to those stated above and elements in the claims, Applicant respectfully submits that the Office Action fails to describe each of the elements recited in claims 2, 6-11, 13-15, 17-18, 27, and 29.

Summary

For at least the reasons stated above, the Office Action fails to state a *prima facie* case of anticipation with respect to claims 1-2, 6-18, 26-27, and 29. Therefore, Applicant respectfully requests withdrawal of the rejections and reconsideration and allowance of claims 1-2, 6-18, 26-27, and 29.

§103 Rejection of the Claims§ 103(a) rejection of claims 3-5 and 19-20.

Claims 3-5 and 19-20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizuno et al. (U.S. 6,166,577) in view of Klemmer (U.S. 6,337,601). Applicant respectfully traverses the rejection of claims 3-5 and 19-20.

The proposed combination of Mizuno et al. with Klemmer fails to describe or suggest all of the elements of claims 3-5 and 19-20.

Claims 3-5 depend from claim 1, and claims 19-20 depend from claim 16. Therefore, dependent claims 3-5 and 19-20 include all of the elements of the claim from which they depend. Applicant believes they have established that Mizuno et al. fails to describe or suggest all of the elements of claims 1 and 16, and so also fails to describe or suggest all of the elements of dependent claims 3-5 and 19-20. Klemmer also fails to supply these elements missing from Mizuno et al. as recited in claims 1 and 16. Therefore, the proposed combination of Mizuno et al. and Klemmer fails to describe or suggest all of the elements of claims 3-5 and 19-20.

Further, dependent claims 3-5 and 19-20 recite additional elements that are not taught or suggested by the proposed combination of Mizuno et al. and Klemmer. For example, claim 5 recites, "wherein the frequency related to the leakage current is substantially proportional to the leakage current." The Office Action on page 4 states "Mizuno et al.'s figure 12 shows that the frequency related to the leakage current is substantially proportional to the leakage current." Applicant respectfully disagrees. FIG. 12 of Mizuno et al. merely depicts various blocks connected together, and fails to show any description or suggestion of the frequencies that may or may not be associated with these blocks. Further, as argued above, Mizuno et al. fails to describe or suggest a relationship between a leakage current and a frequency related to the

leakage current. Therefore, FIG. 12 of Mizuno et al. also fails to describe or suggest "wherein the frequency related to the leakage current is substantially proportional to the leakage current" as recited in claim 5. The proposed combination of Mizuno et al. with Klemmer fails to supply these elements missing from Mizuno et al. Therefore, the proposed combination of Mizuno et al. and Klemmer fails to describe or suggest all of the elements recited in claim 5.

The Office Action fails to provide a proper basis for forming the proposed combination of Mizuno et al. with Klemmer.

The Office Action fails to provide specific, objective evidence of record for a finding of a description, suggestion, or motivation to combine Mizuno et al. with Klemmer. The Office Action on page 4 states, "However, Klemmer's figure 3 shows a timing circuit having counter 82 coupled to the ring oscillator 80 for the purpose of increasing output frequency. Therefore, it would have been obvious to one having ordinary skill in the art to add a counter coupled between the oscillator OSC10 and CNT10 for the purpose of increasing the output frequency of the oscillator OSC10." Applicant respectfully disagrees.

In Mizuno et al., the stated purpose of supplying the substrate bias voltages BP1 and BN1 to the oscillator OSC1 is disclosed at column 8, lines 29-38 where it states:

The substrate bias voltages BP1 and BN1 are also supplied to the substrate-bias dependent oscillation circuit OSC1. The substrate-bias dependent oscillation circuit OSC1 and the substrate bias control circuit CNT1 which receives the output S1 of the oscillation circuit OSC1 as a feedback signal form a stable negative feedback system so that the output S1 of the oscillation circuit OSC1 has its frequency locked to the frequency of oscillation output CLK1 of the operation-mode dependent oscillation circuit VCLK1.

Thus, Mizuno et al. is concerned with locking the frequency of the OSC1 oscillator to the frequency of the output CLK1. FIG. 12 of Mizuno et al. uses the same single CLK10 output to adjust the output frequencies of individual oscillators OSC10-OSC30. (See Mizuno et al. at column 14, lines 47-60). However, there is no description or suggestion in Mizuno et al. of connecting a counter between OSC10 and CNT10 for the purpose of "increasing the output frequency of the oscillator OSC10" as suggested in the Office Action. Increasing the output frequency of the OSC10 oscillation circuit would actually destroy the stated purpose in Mizuno

et al. of "locking the frequency of the OSC1 oscillator to the frequency of the output CLK1." Therefore, the statements in the Office Action are unsupported by the cited documents, and merely represent reconstruction of the Applicant's claimed invention using impermissible hindsight. Thus, the Office Action fails to provide specific, objective evidence of record for a finding of a description, suggestion, or motivation to combine Mizuno et al. with Klemmer.

Summary

For at least the reasons stated above, the Office Action fails to state a *prima facie* case of obviousness with respect to claims 3-5 and 19-20. Therefore, Applicant respectfully requests withdrawal of the rejection and reconsideration and allowance of claims 3-5 and 19-20.

§ 103(a) rejection of claims 28 and 30.

Claims 28 and 30 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizuno et al. (U.S. 6,166,577). Applicant respectfully traverses the rejection of claims 28 and 30 for the reasons cited below.

The cited reference of Mizuno et al. fails to describe or suggest all of the elements of claims 28 and 30.

Claims 28 and 30 depend from claim 26. Therefore, dependent claims 28 and 30 include all of the elements recited in claim 26. Applicant believes they have established that Mizuno et al. fails to describe or suggest all of the elements of claim 26, and so also fails to describe or suggest all of the elements of dependent claims 28 and 30.

In addition, claims 28 and 30 each recite, "further comprising for a communications circuit formed on the substrate, activating a transceiver in the communications circuit." The Office Action admits on page 5 that Mizuno et al. fails to show a communication circuit formed on a substrate. Further, the Office Action on page 5 states, "Therefore, it would have been obvious to one having ordinary skill in the art to use Mizuno et al's figure 12 in a communication circuit for the purpose of reducing power consumption." Applicant respectfully disagrees. Since the Office Action fails to cite any additional references that describe or suggest a communication circuit formed on the substrate, activating a transceiver in the communication circuit as recited in

claims 28 and 30, Applicant assumes the Office Action is taking official notice of these missing elements. Applicant traverses the taking of official notice and requests that the Examiner provide a reference that describes the elements as recited in claims 28 and 30. If the Examiner cannot provide such a reference, Applicant requests that the Examiner submit an affidavit as required by MPEP § 2144.03. If the Examiner cannot provide an affidavit, Applicant requests withdrawal of the rejection and reconsideration and allowance of claims 28 and 30.

Summary

For at least the reasons stated above, the Office Action fails to state a *prima facie* case of obviousness with respect to claims 28 and 30. Therefore, Applicant respectfully requests withdrawal of the rejection and reconsideration and allowance of claims 28 and 30.

Allowable Subject Matter

Claims 21-25 were allowed. Applicant acknowledges the allowance of claims 21-25.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 373-6904) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

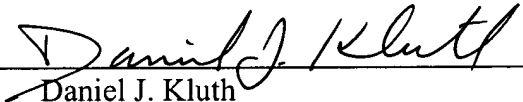
Respectfully submitted,

EDWARD A. BURTON ET AL.

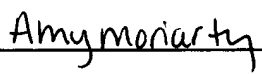
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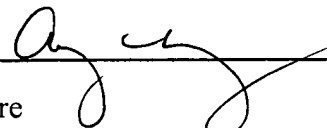
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 12th day of August, 2005.


Name


Signature

IN THE DRAWINGS

Formal drawings are supplied herewith, including FIG. 1A, FIG. 1B, FIG. 1C, FIG. 1D, FIG. 1E, FIG. 2, FIG. 3, FIG. 4A, FIG. 4B, and FIG. 4C on sheets 1-6.